

## MOBILETT Plus/ -E/ -M

**SP**

### Maintenance Protocol System

MOBILETT Plus/ -E/ -M

**Customer:**

**Address:**

**Department:**

**Room:**

**Contact person:**

**Telephone:**

**Cust. specific no.:**

**Cust. no.:**

**Date.:**

The instructions SPR8-215.831.04.03.02 are required for this protocol

© Siemens AG 2002

The reproduction, transmission or use of this document or its contents is not permitted without express written authority. Offenders will be liable for damages. All rights, including rights created by patent grant or registration of a utility model or design, are reserved.

Print No.: SPR8-215.832.04.03.02

Replaces: SPR8-215.832.04.02.02

English

Doc. Gen. Date: 07.05

<b>SIEMENS Office:</b>	
<b>Address:</b>	
<b>Region:</b>	
<b>Country:</b>	
<b>Contact person:</b>	
<b>Tel.:</b>	
<b>CSE in charge:</b>	
<b>Tel.:</b>	

**Remarks Regarding the Protocol:**

The protocol is valid as proof of quality for **one** check that must be performed on the system / component in one year.

The check must be performed in the specified intervals.

The results of the check are entered in this protocol.

The chapter numbers in front of the checkpoints indicate the corresponding chapters in the particular instructions (see cover page).

The protocol must be completely filled out by the Customer Service Engineer, i.e.:

- All boxes must be filled out. If a box does not apply to the system or if no entry needs to be made, check the "n.a." box.
- Enter the customer number (Cust. No. :) and the date of the check in the header of each page so that each page can be allocated to a customer and to a check date.
- If there are complaints, the IVKs for the component about which a complaint has been made as well as the type of complaint must be entered in the "Open Points" table provided for this. Correction of these open points also must be documented in this table with the date and a signature. If there are no open points, check "No" and document this with the date and a signature.
- If movable components (also test phantoms that are part of the system) that can be used in different systems are used for the check, they must be entered in the "Movable Components" table provided for this.
- The measurement values for the measurements that must be performed during the check must also be entered in the open spaces / tables provided for them.
- After completing the check, Page 3 of this protocol must be filled out and signed.

**Further Processing and Archiving of the Protocol**

The protocol is a document and thus must be archived. After completing the test, it must be filed in the corresponding register in the "System Owner Manual" binder. If needed, a copy can be handed to the customer.

<b>System:</b>	
<b>Serial No.:</b>	
<b>Software Version:</b>	
<b>Number of the Service Contract:</b>	
<b>Type of Maintenance:</b>	

**Evaluating the Condition of the System / Component**

The system has no deficiencies. The image quality test resulted in no differences from required reference values.	
The system / component has slight deficiencies that have no affect on continued operation of the system. However they should be corrected preventively. The image quality test resulted in no differences from required reference values.	
The system / component has serious deficiencies. For safety reasons, continued operation of the system is permitted only after successfully correcting the deficiencies.	

**After completing all work steps, an evaluation was performed.**

Signature: \_\_\_\_\_

Date:

Name:

The operator or a person assigned for this has taken note of this evaluation.  
(if national regulations require this)

Signature: \_\_\_\_\_

Date:

Name:

## Explanation of Abbreviations in the Protocol

Abbrev.	Explanation	Abbrev.	Explanation
SI	Safety Inspection	PMF	Preventive Maintenance, Operating Value Check, Function Check
SIE	Electrical Safety Inspection	Q	System Quality, Image Quality
SIM	Mechanical Safety Inspection	QIQ	Image Quality
PM	Preventive Maintenance	QSQ	System Quality Check
PMP	Periodic Preventive Maintenance	SW	Software Maintenance
PMA	Preventive Maintenance Adjustments	CSE	Customer Service Engineer

## Additional activities performed

Only activities that are not described in the instructions for the system / component need to be listed.

Date:			
Additional activities performed:	OK	not OK	n.a.

## Open Points:

Yes:                      No:                      Signature: \_\_\_\_\_

                                    Date:                      Name: \_\_\_\_\_

If "Yes", enter the component with the IVK and the open point (only the number) in the table. After completing maintenance, record this in the table.

IVK	Component	Open Points	Completed	
			Date	Signature

**Measuring Devices queried electronically:**

Yes:                      No:                      Signature: \_\_\_\_\_  
Date:                      Name:

If the measurement devices are queried electronically, for example with a Scout Mobile Device, entry of the measuring devices in the table can be skipped.

Measuring Devices	Type	Serial No.	Date Used	Next Calibration Due

**Movable Components:**

Yes:                      No:                      Signature: \_\_\_\_\_  
Date:                      Name:

If "Yes", enter the movable component with which the check was performed along with the Serial No. in the table.

Movable components (also test phantoms that are part of the system) are parts that can be used on different systems).

Component	Serial No.

**1 General****2 Inspection and maintenance****2.1 Visual inspection**

SIM Labels  
PMP Customer documentation

**2.1.1 Damage**

SIM Covers  
SIM Cassette compartment  
SIM Control and display panel  
SIM Exposure release cable  
SIM Single tank generator  
SIM Collimator  
SIM DAP (optional)

**Option present:** Yes: No:

Signature: \_\_\_\_\_

Date: Name: \_\_\_\_\_

**2.2 Mechanical inspection****2.2.1 Rear wheels**

SIM Drive belt (for MOBILETT Plus M only)  
SIM Brake lining  
SIM Secure mounting  
SIM Ease of movement

**2.2.2 Front wheels**

SIM Secure mounting  
SIM Ease of movement  
PMP Cleaning

**2.2.3 Supporting wheels**

SIM Ease of movement  
SIM Damage

**2.2.4 Turn plate (MOBILETT Plus/Plus M only)**

PMF Button illumination  
PMF Function

**2.2.5 Brakes**

SIM Uniformity  
SIM Braking force  
SIM Locking

**2.2.6 Transport safeguard**

SIM Damage

SIM Locking

**2.2.7 Handles**

SIM Mounting

**2.2.8 Collimator adjustment knobs**

SIM Mounting

**2.2.9 Arm system and single tank**

SIM Movement of the arm system and the single tank

SIM Movement of the single tank fork

SIM Single tank movement

**2.2.10 Mains cable**

PMP Replace the cable winder every 4 years (units with cable winder only).

Startup Date / Date of Last Replacement . .

DD MM YYYY

SIM Cable winder (for units with cable winder only)

PMP Replace the mains cable every 2 years.

Startup Date / Date of Last Replacement . .

DD MM YYYY

SIM Damage

PMP Cleaning

SIM Protective conductor

**2.2.11 Arm system mounting**

SIM Screws and lock nuts

**2.2.11.1 Adjustment screw**

SIM Lock nuts

SIM Base mounting

**2.2.11.2 Arm connecting piece**

SIM Screws and nuts

**2.2.11.3 Single tank fork**

SIM Screw connections on the fork

SIM Single tank screw connections

**2.2.11.4 Lubrication**

PMP Glide bushing on the connecting rod

**2.2.12 Arm cable harness**

SIM Damage

**2.3 Motor batteries (MOBILETT Plus M only)**

- PMF Battery voltage
- PMF Condition
- PMF Charging indicator

**2.4 Service mode****2.5 Maintenance tests**

- SIE Display test
- PMF Filament test
- PMF Rotating anode test
- PMF Capacitor bank and charge test

**2.6 Backup battery G1/D1**

- PMP Replace every 5 years

Startup Date / Date of Last Replacement

. .  
DD MM YYYY

- PMF P11 - Backup battery test

**2.7 Test of kV accuracy**

- PMF 52 kV, 50 mAs

Measured value:

- PMF 81 kV, 20 mAs

Measured value:

- PMF 133 kV, 20 mAs

Measured value:

- PMF 125 kV, 20 mAs

Measured value:

**2.8 Test of mAs accuracy**

- PMF 40 kV, 5 mAs

Measured value:

- PMF 81 kV, 2 mAs

Measured value:



PMF 133 kV, 10 mAs

Measured value:

PMF 125 kV, 10 mAs

Measured value:

## 2.9 Check for reproducibility

QSQ Fluctuation coefficient C

Measured value:

## 2.10 Remote exposure switch system (optional)

SIE Function of the remote exposure switch system

PMP Replace the remote control battery every year.

## 2.11 DAP measuring system (optional)

SIE Function of the DAP measuring system

## 2.12 Replacing the collimator lamp

PMP Replace every year

PMF Function of the collimator lamp

## 2.13 Checking the luminance

PMF Luminance

## 2.14 Coincidence of radiation and light fields

QSQ Deviation  $((A + C) / \text{SID})$

Measured value:

QSQ Deviation  $((B + D) / \text{SID})$

Measured value:

## 2.15 Checking the radiation indicator

SIE Radiation indicator

SIE Audible signal

## 2.16 Checking the manual exposure interrupt

SIE Message "USE20"

SIE 10 short beep signals

**2.17 Protective conductor measurement**

SIE Measured value

Measured value:

**2.18 Equivalent leakage current measurement**

SIE Measured value

Measured value:

**2.19 Cleaning the system**

PMP Cleaning

**2.20 Checking the kV and mAs displays**

PMF "Ready" indicator

SIE Visibility of displays

SIE Correct displays

**2.21 Motor drive function (MOBILETT Plus M only)**

PMF Forward/reverse

PMF Acceleration

SIE Shutdown function